

Introduction to Patents

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A patent has the potential of providing tremendous wealth to its owner. The owner can prevent all others from using, making or selling the patented item throughout the United States for as long as 17 years. However, the patent is worthless unless the patented item is commercialized. For instance, a patent may be received for a new "widget", but if no one is interested in buying a "widget", the inventor is not likely to get rich from the patent. On the other hand, if a patent is received for an internal combustion engine which will propel an automobile for 300 miles on one gallon of gasoline, which can be manufactured at about the same cost as existing internal combustion engines, and which meets emission requirements, etc., there will be a great demand for the invention with the inventor likely to realize great wealth. The inventor, however, will have to commercialize, license or sell the rights to the invention to realize any revenue. Further, the inventor must take legal action to prevent anyone from infringing his patent. Although the United States Patent and Trademark Office makes the grant, they do not take any positive action to protect the inventor's rights or assist in gaining any wealth for the inventor.

What is a patent?

A patent is an exclusive property right to an invention issued by the Commissioner of Patents and Trademarks, U.S. Department of Commerce. The rights granted are limited to the "claims" of the patent. There are three classifications of patents: (1) utility, (2) design and (3) plant.

A **utility patent** may be obtained for a process, machine, article of manufacture, composition of material, or any improvement thereof for 17 years. Accordingly, a utility patent cannot be obtained on laws of nature, methods of doing business, mathematical formulas, scientific principles or printed matters. Patents can be obtained for improvement of existing patented items, i.e., internal combustion engine.

To be patentable, the invention must be (1) new or novel, (2) useful or have utility and (3) non-obvious. If the invention has been used, sold or known by others in the United States or patented or disclosed in a printed publication in the United States or a foreign country before the invention was made by the inventor, a patent is barred. It is also barred if the invention was patented or described in a publication or in public use or on sale in the United States more than one year prior to the application for the patent. Useful inventions must advance the useful arts and benefit the public. The test of obviousness is the ability to those "with ordinary skill in the art involved".

Design patents are granted on new, original, and ornamental design of an article of manufacture for a term of 3-1/2 years, 7 years or 14 years, as the applicant may elect. The conditions for patentability differ from utility patents, i.e., novelty, originality and ornamental versus novelty, utility and non-obviousness. The design patent is not concerned with how the article of manufacture was made and of what it is constituted, but how it looks.

Plant patents are granted for 17 years for plants when asexually reproduced with the exception of tuber propagated plants or plants found in an uncultivated state. Patentable plants must have been reproduced by means other than seeds, such as by the rooting of cuttings or by grafting. Plants amenable to plant protection include shrubs, vines, roses and various types of fruit and nut trees.

What to do?

Step 1: Documentation of intention to establish your rights against all others.

The invention process includes (1) conception and (2) reduction to practice. To the extent that the first to conceive made a reasonable, diligent effort to reduce the invention to practice, he will receive the patent, even though he was not the first to reduce to practice. Accordingly, it is critical that the inventor maintain good records to establish the date of conception and diligence in reduction to practice in case of any later interference. Reduction to practice does not always require showing perfect results. In fact, it may not require actual reduction to practice at all. The filing of the patent application satisfies reduction to practice if, from the patent specification, one skilled in the art to which it relates is capable of constructing or carrying out the invention.

A written disclosure of the invention should be made as soon after conception as possible. There is no specific requirement about the form a written disclosure must take to document the conception of an invention. A disclosure's primary purpose is to prove the date of conception where there is question of invention.

The disclosure should include sufficient description and sketches to fully describe what has been conceived. The disclosure should be made in ink and signed and dated by the inventor. The disclosure should be witnessed by at least two persons who fully understand its content. The signatures of the witnesses should appear on each page of the disclosure, preferably at the bottom of each page and beneath the legend: "Explained to and understood by us this day of , 19 ."

The practice of inventors mailing a disclosure to themselves is questionable and not advised for proof of conception.

The U.S. Patent and Trademark office has a "Disclosure Document Program" that permits placing the disclosure on file, in confidence, with them for two years after receipt of \$10. This provides a credible form of evidence of conception should the inventor wish to use it.

To demonstrate diligence to "reduce to practice", a written record of developmental activities should be maintained in a bound notebook. Daily entries are encouraged. Each page should be signed and witnessed in close proximity to the date of the entries on that page. Each entry should be made in chronological order. Notebook pages should be consecutively numbered, with all entries made in ink. If an error is made in an entry, it should not be erased; it should be crossed out. All entries should be made by the inventor in his or her own handwriting.

Step 2: Contact a patent attorney / agent.

Although it is permissible for an inventor to file his own application, it is strongly advised that a patent attorney or agent be used to make and prosecute the application. It is critically important that as broad a claim as possible be obtained to prevent others from "inventing around your patent." Therefore, it is advisable to use someone who is knowledgeable in how to write and prosecute applications. Patent attorneys/agents can be found listed in the yellow pages, or a roster entitled "Directory of Registered Patent Attorneys and Agents Arranged by States and Counties" can be purchased from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402.

Fees charged by patent attorneys and agents for application and prosecution will generally range from \$1,000 to \$5,000. Costs are going to be highly dependent upon the complexity of the invention, number of rejections by the patent examiner, interference proceedings, etc. Of course this cost may represent only a very small part of the patent's value.

Care should be exercised in marking products with the designation "patent pending". A patent application must actually be pending when the designation is used. Otherwise, the person putting the designation on the product is liable for fines for false marketing.

For further information contact: U.S. Patent and Trademark Office (PTO), phone (703) 308-4357 or (703) 308-4364.

To order, request BI0009, *Introduction to Patents* (25 cents).

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